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## 1. FORAMINIFERA AND OSTRACODA FROM SOUNDINGS MADE BY THE TRAWLER "BONTHORPE" IN THE GREAT AUSTRALIAN BIGHT.

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We are indebted to Mr. D. L. Serventy, B.Sc., for the opportunity of examining the bottom soundings collected by him in the Great Australian Bight while on the trawler "Bonthorpe" in February, 1930. The amount of material is very small as the samples were taken with grease by means of the sounding lead. Only one exceeds 0.5 cc. They consist almost entirely of foraminifera and polyzoa, with an occasional ostracodal valve. The number of species and varieties of foraminifera identified is 112, of which one is described as new and another species is renamed. Eleven species of ostracoda were met with, several of which are probably new to science, but insufficient specimens are available for their description.

The senior author has previously, in 1915, published a list of species from the same faunal area as the present soundings. This will be found in *Biol. Results "Endeavour,"* vol. iii, pt. 1 (pp. 1-51, pls. i-iii), the material being from an "Endeavour" dredging made 40 miles south of Cape Wiles, South Australia, in lat. 35° 35' S., long. 135° 15' E., in 100 fms. Many of the "Endeavour" species occur in the "Bonthorpe" material and for purposes of comparison are shown in the first column of the subjoined table. Recent work has resulted in the alteration of the names of several species recorded from 40 miles S. of Cape Wiles and they are here listed under their amended names. The absence of others from the "Bonthorpe" samples may be explained by the limited amount of material available for examination.

In the list of species several manuscript names will be found. The descriptions of these species will shortly be published, several in a report by us on the foraminifera dredged by the Australasian Antarctic Expedition 1911-14, under the leadership of Sir Douglas Mawson, and the remainder in a paper, by the junior author, on Victorian and South Australian shallow-water foraminifera.\*

\* Since published, see *Proc. Roy. Soc. Vic.* 44, p. 1, pl. I. (1931).

## DETAILS OF SOUNDINGS.

Feb. 23rd, 1930. Lat.  $33^{\circ} 14'$  S., long.  $126^{\circ} 16'$  E.

Sample 2, taken at 10.40 a.m. in 89 fms.  
 , 3, " 11.50 a.m. in 75 fms.  
 , 4, " 12.30 p.m. in 100 fms.

Same day, in Lat.  $33^{\circ} 15'$  S., long.  $126^{\circ} 10'$  E.

Sample 5, taken at 1.55 p.m. in 62 fms.  
 , 6, " 2.5 p.m. in 70 fms.

Feb. 26th, 1930. Lat.  $33^{\circ} 50'$  S., long.  $125^{\circ} 17'$  E.

Sample 7, taken at 6.0 a.m. in 40 fms.  
 , 8, " 9.0 a.m. in 39 fms.

Feb. 27th, 1930. Lat.  $34^{\circ} 0'$  S., long.  $124^{\circ} 56'$  E.

Sample 9, taken at 3.0 a.m. in 39 fms.  
 , 10, " 6.0 a.m. in 36 fms.

Feb. 28th, 1930. Lat.  $33^{\circ} 50'$  S., long.  $124^{\circ} 40'$  E.

Sample 11, taken at 6.0 a.m. in 41 fms.  
 , 12, " 4.50 p.m. in 39 fms.

## LIST OF SPECIES.

(v.c., very common; c., common; f., frequent; r., rare.)

## FORAMINIFERA.

No.	Species.	S. of C. Wiles.	Sample No.										
			2	3	4	5	6	7	8	9	10	11	12
1	<i>Spirillina inaequalis</i> Brady	...			1	...	...						
2	<i>Lenticulina orbicularis</i> (d'Orbigny)	x	...	...		1	...	...	...	...			
3	<i>L. rotulata</i> (Lamarek)	x	...	1	...	1	...	...	...	...			
4	<i>Nodosaria proxima</i> O. Silvestri	...				r.	1	...	...	...			
5	<i>N. scalaris</i> (Batsch)	x	...	...	...	...	1	...	...	...			
6	<i>Lagena globosa</i> (Montagu)	...	...	...	...	1	...	...	...	...			
7	<i>L. hexagona</i> (Williamson)	...	...	...	...	1	...	...	...	...			
8	<i>L. orbignyanus</i> (Seguenza)	x	...	...	...	1	...	...	...	...			
9	<i>L. lacunata</i> Burrows and Holland	...	...	...	...	1	...	...	...	...			
10	<i>L. sulcata</i> (Walker and Jacob)	x	...	...	...	1	...	...	...	...			
11	<i>Guttulina regina</i> (Brady, Parker, and Jones)	...	1	1	...	...	1	...	...	...			
12	<i>Sigmoidella kagaensis</i> Cushman and Ozawa	...	1	1	1	...	...	...	...	...			1
13	<i>S. elegantissima</i> (Parker and Jones)	...	x	1	...	...	1	r.	...	...	1	...	...
14	<i>Buliminella elegantissima</i> (d'Orb.)	x	...	...	...	r.	1	...	...	...	1	1	1
15	<i>B. seminuda</i> (Terquem)	x	...	...	...	r.	...	...	...	...			
16	<i>Bulinoides williamsoniana</i> (Brady)	...	...	...	...	...	1	...	...	...			
17	<i>Cassidulina laevigata</i> d'Orb.	...	...	r.	1	c.	...	...	...	...			
18	<i>C. subglobosa</i> Brady	...	x	c.	r.	c.	r.	...	...	...			
19	<i>Bolivina abbreviata</i> Heron-Allen and Earland	...	...	c.	r.	c.	e.	f.	...	...			
20	<i>B. robusta</i> Brady	...	x	...	...	...	r.	...	...	...	1	...	
21	<i>Loxostomum limbatum</i> (Brady), var. <i>costulatum</i> (Cushman)	...	...	...	...	1	...	...	...	...			
22	<i>Reussia armata</i> Parr MS.	...	...	c.	...	f.	...	...	...	...			
23	<i>R. ensiformis</i> (Chapman)	...	...	...	...	1	...	...	...	...			
24	<i>R. spinulosa</i> (Reuss)	...	x	...	...	...	1	...	...	1	...		
25	<i>Uvigerina pigmea</i> d'Orb.	...	x	c.	c.	v.c.	v.c.	...	1	...			
26	<i>Siphogenerina raphanus</i> (Parker and Jones)	...	...	1	...	r.	1	...	...	...			
27	<i>Melonis stelligerus</i> (d'Orb.)	...	...	...	1	...	...	...	...	...			
28	<i>Elphidium crispum</i> (Ninné)	x	r.	f.	f.	c.	1	r.	c.	...	c.	c.	c.
29	<i>E. craticulatum</i> (Fichtel and Moll)	...	...	...	...	...	...	...	...	...	1	...	
30	<i>Bolivinita rhomboidalis</i> (Millett)	...	...	...	...	...	1	...	...	...			
31	<i>Bolivinella folium</i> (Parker and Jones)	x	...	...	...	1	...	...	...	...			
32	<i>Spirolina cylindracea</i> (Lamarek)	...	1	...	r.	1	...	...	...	...			f.

## LIST OF SPECIES—continued.

No.	Species.	S. of C. Wiles.	Sample No.										
			2	3	4	5	6	7	8	9	10	11	12
33	<i>Peneroplis planatus</i> (F. & M.)	...	...	...	...	1	...	f.	c.	1	f.	f.	f.
34	<i>Marginopora vertebralis</i> (Quoy and Gaimard)	...	...	...	...	...	...	1	r.	r.	f.	f.	1
35	<i>Discorbis australis</i> (Parr MS.)	...	1	1	...	...	...	...	1	...	...	...	...
36	<i>D. dimidiata</i> (Jones and Parker)	...	...	1	f.	r.	1	c.	c.	c.	r.	c.	...
37	<i>D. dimidiata</i> , var. <i>acervulinoides</i> (Parr MS.)	...	...	...	...	1	...	r.	...	...	c.	...	r.
38	<i>D. mira</i> (Cushman)	...	...	r.	...	...	...	1	...	...	...	...	...
39	<i>D. opercularis</i> (d'Orb.)	...	...	...	...	r.	...	...	...	...	...	...	...
40	<i>D. patelliformis</i> (Brady)	...	...	...	...	...	...	...	...	...	...	...	1
41	<i>D. pulvinata</i> (Brady)	...	...	...	...	1	...	...	...	...	...	...	...
42	<i>Eponides repandus</i> (F. & M.)	x	f.	...	...	f.	f.	...	...	...	...	...	...
43	<i>E. concentricus</i> (Parker and Jones)	x	...	...	...	f.	r.	...	...	...	...	...	...
44	<i>Rotalia beccarii</i> (Linné)	...	...	...	...	r.	...	...	...	...	...	...	...
45	<i>R. clathrata</i> (Brady)	...	x	1	1	1	c.	c.	r.	f.	c.	c.	...
46	<i>Cancris auricula</i> (F. & M.)	...	...	...	...	...	1	1	r.	...	1	1	...
47	<i>Amphistegina radiata</i> (F. & M.)	...	...	...	1	...	...	...	...	...	...	...	...
48	<i>Sphaerooidina bulloides</i> (d'Orb.)	...	...	...	1	...	...	...	...	...	...	...	...
49	<i>Globigerina bulloides</i> (d'Orb.)	x	...	1	...	1	r.	...	...	...	...	...	...
50	<i>G. conglomera</i> (Schwager)	...	r.	f.	...	r.	r.	...	...	...	...	...	...
51	<i>G. inflata</i> (d'Orb.)	x	c.	c.	c.	v.c.	r.	r.	1	1	...	r.	...
52	<i>Globigerinoides rubra</i> (d'Orb.), colorless var.	...	x	1	1	...	c.	f.	...	...	1	...	...
53	<i>G. triloba</i> (Reuss)	...	x	1	...	...	f.	...	...	...	...	...	1
54	<i>Globigerinella aequilateralis</i> (Brady)	...	r.	1	...	1	...	...	...	...	...	...	1
55	<i>Orbulina universa</i> (d'Orb.)	x	...	...	1	...	...	...	...	...	...	...	...
56	<i>Globorotalia menardii</i> (d'Orb.)	...	1	1	...	1	...	...	...	...	...	...	1
57	<i>G. truncatulinoidea</i> (Brady)	...	...	1	...	...	...	...	...	...	...	...	...
58	<i>Anomalina coronata</i> (P. & J.)	...	x	1	1	...	1	...	...	...	...	...	...
59	<i>A. colligera</i> (Chapman and Parr MS.)	...	x	...	1	...	1	r.	...	...	...	...	...
60	<i>A. glabrata</i> (Cushman)	...	...	f.	c.	1	c.	c.	...	...	...	...	...
61	<i>Planulina biconcava</i> (Jones and Parker)	...	x	...	...	...	r.	...	...	...	...	...	...
62	<i>Cibicides fulgens</i> (Montfort)	...	1	f.	r.	r.	r.	...	c.	1	f.	r.	c.
63	<i>C. lobatulus</i> (Walker and Jacob)	x	r.	...	r.	?	r.	...	...	...	...	...	r.
64	<i>C. ungerianus</i> (d'Orb.)	x	c.	...	...	f.	f.	r.	...	...	...	...	...
65	<i>C. haideri</i> (d'Orb.)	...	...	...	...	f.	...	r.	...	r.	f.	r.	...
66	<i>Gypsina globulus</i> (Reuss)	...	...	...	...	...	...	...	...	...	...	...	1
67	<i>G. vesicularis</i> (P. & J.)	...	...	...	...	1	...	...	...	...	r.	...	...
68	<i>Polytrema miniaceum</i> (Pallas)	...	r.	...	...	r.	1	...	1	...	c.	c.	r.
69	<i>Hyperammina friabilis</i> (Brady)	...	1	...	...	...	1	...	...	...	...	...	...
70	<i>Cornuspira involvens</i> (Reuss)	x	1	...	...	...	...	...	...	...	...	...	...
71	<i>Planispirina bucculenta</i> (Brady)	...	f.	c.	...	c.	...	...	...	...	...	...	...
72	<i>Nubecularia lucifuga</i> (Defrance)	...	...	...	...	...	...	...	...	...	1	...	1
73	<i>Quinqueloculina amphophila</i> (Parr MS.)	...	x	1	1	...	...	r.	...	...	1	...	...
74	<i>Q. australis</i> (Parr MS.)	...	...	...	...	...	1	r.	...	...	1	...	...
75	<i>Q. lamarckiana</i> (d'Orb.)	x	c.	r.	c.	f.	f.	r.	r.	1	1	...	...
76	<i>Q. poeyana</i> (d'Orb.)	...	...	...	...	1	...	...	...	...	...	...	1
77	<i>Q. reticulata</i> (d'Orb.)	...	...	...	...	f.	...	...	...	...	...	...	...
78	<i>Q. vulgaris</i> (d'Orb.)	x	...	r.	...	1	...	...	...	...	...	...	r.
79	<i>Q. polygona</i> (d'Orb.)	...	1	...	1	...	r.	...	...	1	1	...	...
80	<i>Q. crassa</i> (d'Orb.)	...	...	...	1	1	1	r.	...	c.	1	f.	r.
81	<i>Spiroloculina canalicularis</i> (d'Orb.)	x	...	r.	r.	f.	1	...	r.	...	1	...	...
82	<i>S. antillarum</i> (d'Orb.), var. <i>reticulosa</i> (Chapman)	...	x	1	...	...	...	...	...	...	...	...	...
83	<i>S. milletti</i> (Wiesner)	...	...	...	...	...	...	...	...	...	...	1	...
84	<i>Sigmaolina celata</i> (Costa)	x	...	r.	...	f.	r.	...	...	...	...	...	...
85	<i>S. schlimbergeri</i> (A. Silvestri)	...	...	...	...	...	1	...	...	...	...	...	...
86	<i>Triloculina circularis</i> (Bornemann)	x	1	c.	...	...	1	...	...	...	...	...	...
87	<i>T. insignis</i> (Brady)	...	x	f.	1	r.	...	r.	1	r.	...	r.	...
88	<i>T. tricarinata</i> (d'Orb.)	...	x	...	1	...	...	...	...	...	1	...	...
89	<i>T. trigonula</i> (Lamarcq.)	x	f.	...	f.	...	...	...	...	1	r.	...	...
90	<i>Flintina triquetra</i> (Brady)	...	...	...	1	...	r.	...	...	...	...	...	...
91	<i>Ptychomiliola separans</i> (Brady)	...	f.	1	1	r.	1	...	...	...	...	...	...
92	<i>Pyrgo fornasinii</i> , nom. mut.	x	...	1	...	...	1	...	...	...	...	...	...
93	<i>Haplophragmoides grandiformis</i> (Cushman)	...	...	...	...	...	1	...	...	...	...	...	...
94	<i>Ammobaculites reophaciformis</i> (Cushman)	...	c.	...	c.	1	f.	...	...	...	1	...	...
95	<i>Reophax euneta</i> (Jensen)	...	...	...	...	1	...	...	...	...	...	...	...
96	<i>R. scorpiurus</i> (Montfort)	x	c.	r.	...	c.	...	r.	1	1	1	...	1
97	<i>Textularia candiana</i> (d'Orb.)	...	...	...	...	...	1	...	1	...	...	...	...
98	<i>T. conica</i> (d'Orb.)	...	...	...	r.	r.	...	...	...	?	1	...	...
99	<i>T. foliacea</i> (Heron-Allen and Earland)	...	...	f.	...	f.	f.	...	...	...	...	...	...
100	<i>T. heterostoma</i> (Fornasini)	...	...	1	...	r.	f.	...	...	...	...	...	...
101	<i>T. pseudogrammen</i> (Chapman and Parr MS.)	...	x	f.	c.	f.	c.	f.	r.	r.	1	1	f.
102	<i>T. porrecta</i> (Brady)	...	x	c.	c.	c.	c.	...	...	...	...	...	...
103	<i>T. rugosa</i> (Reuss)	...	...	...	...	...	...	...	...	...	r.	...	...

## LIST OF SPECIES—continued.

No.	Species.	S. of C. Wiles.	Sample No.										
			2	3	4	5	6	7	8	9	10	11	12
104	<i>T. concava</i> (Karrer) ...	...	...	...	...	1	...	...	...	...	...	...	...
105	<i>T. sagittula</i> (Defrance) ...	x	1	e.	r.	v.e.	f.	...	...	1	...	...	...
106	<i>Bigerina textularioidea</i> (Goës) ...	x	r.	f.	1	f.	c.	...	...	...	...	...	...
107	<i>Gaudryina triangularis</i> (Cushman) ...	v.e.	e.	e.	e.	e.	...	...	...	...	...	...	...
108	<i>G. quadrangularis</i> (Bagg) ...	...	...	...	...	1	...	...	...	...	...	...	...
109	<i>G. hastata</i> (Parr MS.) ...	...	r.	e.	e.	e.	r.	...	1	f.	1	1	1
110	<i>Clavulina serpentyi</i> , sp. nov. ...	...	f.	f.	e.	e.	r.	...	1	...	...	...	...
111	<i>C. difformis</i> (Brady) ...	...	...	1	1	...	...	...	1	...	1	...	...
112	<i>Cribrobulimina polystoma</i> (Parker and Jones) ...	...	1	...	...	...	1	...	1	f.	f.	...	1

## OSTRACODA.

1	<i>Bairdia</i> sp. aff. <i>foreolata</i> (G. S. Brady)	...	...	...	...	...	1	...	...	...	...	...	...
2	<i>B. amygdaloides</i> (G.S.B.) ...	x	...	...	...	r.	...	...	...	...	...	...	...
3	<i>Cythere polyptrema</i> (G.S.B.) ...	...	1	...	...	...	...	...	...	...	...	...	...
4	<i>C.</i> sp. aff. <i>moseleyi</i> (G.S.B.) ...	...	...	...	...	1	...	...	...	...	...	...	...
5	<i>C.</i> sp. aff. <i>relicata</i> (G.S.B.) ...	...	...	1	...	...	...	...	...	...	...	...	...
6	<i>Loxoconcha australis</i> (G.S.B.) ...	...	...	...	...	...	...	...	r.	...	...	...	...
7	<i>Xestoleberis variegata</i> (G.S.B.) ...	x	1	...	...	...	...	...	...	...	...	...	...
8	<i>Cytheropteron wellingtoniense</i> (G. S. B.) ...	...	...	...	...	1	...	...	...	...	...	...	...
9	<i>Bythocythere</i> sp. aff. <i>pumilio</i> (G. S. B.) ...	...	...	...	...	1	...	...	...	...	...	...	...
10	<i>Cytherella ovalis</i> (G.S.B.) ...	...	...	...	...	...	...	...	...	...	...	...	r.
11	<i>C. punctata</i> (G.S.B.) ...	...	...	r.	...	...	...	...	...	...	...	...	...

## NOTES ON THE MORE INTERESTING FORAMINIFERA.

*Reussia ensiformis* (Chapman). Plate I., fig. 1.

*Verneuilina ensiformis* Chapman, 1910, Proc. Roy. Soc. Vic., vol. xxi (n.s.), pt. 2 (for 1909), p. 271, pl. ii, figs. 1a, b. Heron-Allen and Earland, 1924, Journ. Roy. Micr. Soc., p. 138, pl. vii, figs. 5, 6. Parr, 1926, Vic. Nat., vol. xlili, p. 18.

One typical example was met with in the "Bonthorpe" soundings. The occurrence of this rare species as a Recent form is noteworthy, as all previous records, which are given above, are from the Oligocene and Miocene of Victoria.

*Flintina triquetra* (Brady). Plate I., figs. 2a, b.

*Miliolina triquetra* Brady, 1879, Quart. Journ. Micr. Sci., vol. xix, p. 268; 1884, "Challenger" Rept. Zool., vol. ix, p. 181, pl. viii, figs. 8-10.

There are several small but otherwise characteristic specimens. This species is extremely rare and is confined to moderately shallow water in the Indo-Pacific region. Brady's figured examples were from Bass Strait.

*Ptychomiliola separans* (Brady). Plate I., fig. 3.

*Miliolina separans* Brady, 1881, Quart. Journ. Micr. Sci., vol. xxi, p. 45; 1884, "Chall." Rept. Zool., vol. ix, p. 175, pl. vii, figs. 1-4.

*Ptychomiliola separans* (Brady): Eimer and Fickert, 1899, Zeitschr. Wiss. Zool., vol. lxv, p. 687.

This is represented by one adult specimen and several examples of the early, involute stages, when this species is very much like *Triloculina linneiana* d'Orb. Although seldom recorded, *P. separans* is a common form on the east coast of Australia and in Bass Strait, in water of moderate depth.

*Pyrgo fornasinii*, nom. mut.

*Biloculina ringens* Brady (*non Miliolites ringens* Lamarck, 1884, "Chall." Rep. Zool., vol. ix, p. 142, pl. ii, fig. 7).

*B. bradyi* Schlumberger (*non Fornasini*), 1891, Mem. Soc. Zool. France, vol. iv, p. 170, text-figs. 15-19; pl. x, figs. 63-71 (and later authors).

There are two typical examples of the form figured by Brady as *Biloculina ringens*. This was subsequently renamed *B. bradyi* by Schlumberger who, however, overlooked that this name had already been used by Fornasini<sup>(1)</sup> for another species.

*Ammobaculites rheophaciformis* Cushman. Plate I., figs. 5, 6.

*Ammobaculites rheophaciformis* Cushman, 1910, Proc. U.S.Nat. Mus., vol. xxxviii, p. 440, text-figs. 12-14; 1920, Bull. 104, U.S.Nat. Mus., pt. 2, p. 67, pl. xiii, fig. 6; 1922, Publ. 311, Carn. Inst. Wash., p. 20, pl. i, fig. 1.

Typical examples are fairly common. This is the first record of the species from Australian waters. The type-specimens were from the Philippines where it occurred abundantly as a shallow-water coral reef species. Cushman's records are from the West Indies and from the tropical Pacific.

*Rheophax euneta* Jensen. Plate I., fig. 4.

*Rheophax euneta* Jensen, 1905, Proc. Linn. Soc. N.S.W. for 1904, pt. 4, p. 821, pl. xxiii, figs. 5-7a, b.

*Rheophax euneta* Jensen: Heron-Allen and Earland, 1922, Brit. Ant. ("Terra Nova") Exped. Nat. Hist. Rept. Foram., p. 96, pl. iii, figs. 13, 14.

One good example of this species was met with. The only records of its occurrence are those given above. These are from Byron Bay, N.S.W., 111 fms., and 7 miles E. of North Cape, N.Z., 70 fms. We have nothing to add to Heron-Allen and Earland's observations on the structure of the test.

*Clavulina serventyi*, sp. nov. Plate I., figs. 7a, b.

*Description*:—Test elongate, triserial portion trihedral, bluntly pointed; uniserial portion subcylindrical, often slightly tapering, apertural end rounded; chambers broader than high, in the uniserial portion separated by depressed sutures; wall thick, coarsely arenaceous, the surface rough; aperture small, circular, with a valvular tooth; occasionally consisting of two or three pores; colour creamy white.

Length up to 4 mm.

Holotype (Chapman Coll.) from "Bonthorpe" Sample 6.

*Observations*:—This is a common form on the Australian coast in dredgings from depths of from 100 to 300 fms. and is probably the species recorded by Brady and later authors from the Indo-Pacific region as *C. parisiensis* d'Orb. Our specimens of *C. parisiensis*, from the Eocene of Grignon, show it to be a much smaller, irregularly-formed species, with fewer chambers, and usually with a smoothly finished test, although this may occasionally be roughened. Cushman's *C. humilis*, var. *mexicana* (*vide Bull. 104, U.S.Nat. Mus., pt. 3, 1922, p. 83, pl. xvi, figs. 1-3*) bears some resemblance

(1) 1886, Bull. Soc. Geol. Ital., vol. v, p. 261.

to the present species, but differs in the subglobular shape of the later chambers which are separated by deeply constricted sutures, and in its produced apertural end. *C. parisiensis*, var. *multicamerata* Chapman, described (Journ. Quak. Micr. Club, ser. 2, vol. x (for 1907), 1909, p. 127, pl. ix, fig. 5) from the coast of Victoria has a smooth shell, with the first few chambers of the uniserial portion triangular in section, while the apertural end is depressed, with the conspicuous, often ciliate aperture surrounded by a raised border.

The specific name is given in honour of Mr. D. L. Serventy, B.Sc., who has so kindly given us the opportunity of examining these interesting soundings.

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#### EXPLANATION OF PLATE I.

Fig. 1.—*Reussia ensiformis* (Chapman).—"Bonthorpe" Sample 8, from lat.  $33^{\circ} 50'$  S., long.  $125^{\circ} 17'$  E., 39 fms.  $\times 46$ .

Fig. 2.—*Flintina triquetra* (Brady).—*a*, side view; *b*, apertural view. "Bonthorpe" Sample 6, from lat.  $33^{\circ} 15'$  S., long.  $126^{\circ} 10'$  E., 70 fms.  $\times 46$ .

Fig. 3.—*Ptychomiliola separans* (Brady).—"Bonthorpe" Sample 5, from lat.  $33^{\circ} 15'$  S., long.  $126^{\circ} 10'$  E., 62 fms.  $\times 23$ .

Fig. 4.—*Rheophax euneta* (Jensen).—"Bonthorpe" Sample 5, from lat.  $33^{\circ} 15'$  S., long.  $126^{\circ} 10'$  E., 62 fms.  $\times 23$ .

Figs. 5, 6.—*Ammobaculites reophaciformis* (Cushman).—5, "Bonthorpe" Sample 2, from lat.  $33^{\circ} 14'$  S., long.  $126^{\circ} 16'$  E., 89 fms.  $\times 34$ . 6, Early chambers of another specimen, showing initial coiled series. Sample 6, from lat.  $33^{\circ} 15'$  S., long.  $126^{\circ} 10'$  E., 70 fms.  $\times 46$ .

Fig. 7.—*Clavulina serventyi*, sp. nov. Holotype. *a*, side view; *b*, apertural view. "Bonthorpe" Sample 6, from lat.  $33^{\circ} 14'$  S., long.  $126^{\circ} 10'$  E., 70 fms.  $\times 23$ .

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